

1. (Previously amended) A manually operated tong assembly comprising:

a) an elongated, rectangular body member having an elongated slot portion and an elongated lead screw member extending through said slot portion and at least the length of said body member;

b) an upper tong jaw fixed to said body member having sliding pipe dies captured therein and means for positioning at least one of said dies relative to said upper tong jaw; and

c) a lower tong jaw having sliding pipe dies captured therein, means for positioning at least one of said dies relative to said lower tong jaw, and a slotted arm portion pivotally and translatively attached to a pin assembly threadably traversable along said elongated lead screw member located within said elongated slot portion of said body member.

2. (Original) The manually operated tong assembly according to claim 1 wherein said tong assembly further comprises a load cell activated by rotation of said lead screw.

3. ( Original) The manually operated tong assembly according to claim 1 wherein said means for positioning at least one of said pipe dies is a jack screw rotatably connected to at least one of said pipe dies.

4. (Original) The manually operated tong assembly according to claim 3 wherein said jackscrew is threadably engaged with an externally threaded sleeve member.

5. (Original)The manually operated tong assembly according to claim 1 wherein one of said pipe dies located within in each said tong jaw is slidably removable.

6. (Previously Amended) The manually operated tong assembly according to claim 1 wherein said slotted arm portion is defined by a transverse channel each side of said channel having opposing parallel elongated slots therein.
7. (Canceled) The manually operated tong assembly according to claim 1 wherein said lead screw is threadably connected to a pin traversable within said slot portion of said body member.
8. (Previously Amended) The manually operated tong assembly according to claim 6 wherein a portion of said pin assembly is captured within each of said elongated slots located in said lower tong jaw.
9. (Original) The manually operated tong assembly according to claim 2 wherein said lead screw further comprises a thrust bearing attached thereto for making compressive contact with said load cell.
10. (Original) The manually operated tong assembly according to claim 9 wherein load cell further comprises a gauge for registering compressive force applied to said load cell by said lead screw.
11. (Previously Amended) A lightweight, manually operated pipe tong assembly clampable to pipe string comprising:
  - a) an elongated body member having a head portion and a tang portion having an elongated slot, said head portion having a central longitudinal counter bore and a central longitudinal orifice within said counter bore communicative with said elongated slot, said tang portion having a central longitudinal orifice located opposite said head portion;

- b) a lead screw member rotatably extending longitudinally through said central longitudinal orifice and said central longitudinal orifice located within said tang portion opposite said head portion;
  - c) a pin member threadably located upon said lead screw member slidable within said elongated slot, a portion of said pin member extending above and below said tang portion;
  - d) a first jaw member removably attached to said head portion of said elongated body member; and
  - e) a second jaw member having an arm portion comprising a transverse channel, each side of said channel having opposing elongated slots, said slots being capable of capturing said portion of said pin member extending above and below said tang portion in a pivotal manner.
12. (Original) The lightweight, manually operated pipe tong assembly according to claim 11 wherein each said jaw member further comprises a set of pipe dies slidable within a channel.
13. (Original) The lightweight, manually operated pipe tong assembly according to claim 12 wherein at least one of said pipe dies is rotatably attached to a jack screw extending from said tong jaw.
14. (Original) The lightweight, manually operated pipe tong assembly according to claim 13 wherein said jack screw is threadably interposed within an externally threaded sleeve threadably installed within said tong jaw.
15. (Original) The lightweight, manually operated pipe tong assembly according to claim 13

wherein said jackscrew comprises means for rotatable connection to at least one of said dies.

16. (Original) The lightweight, manually operated pipe tong assembly according to claim 11 wherein said tong assembly further comprises a load cell attached to said head portion and a housing threadably attached to said load cell extending over a portion of said lead screw in a manner whereby a portion of said lead screw extends beyond said housing. 17.

(original) The lightweight, manually operated pipe tong assembly according to claim 16 wherein said pipe tong assembly further comprises a gauge connected to said load cell.

17. (Original) The lightweight, manually operated pipe tong assembly according to claim 16 wherein said pipe tong assembly further comprises a gauge connected to said load cell.

18. (Cancelled ) ~~A method for applying torque to a threaded pipe joint comprising the step of attaching a portable manual tong assembly to the pipe joint, the tong assembly having an elongated rectangular body member having an elongated slot portion and an elongated lead screw member extending through said slot portion and at least the length of said body member, an upper tong jaw fixed to said body member having a set of opposing sliding pipe dies captured therein and means for positioning at least one of said dies relative to said upper tong jaw and a lower tong jaw having a set of opposing sliding pipe dies captured therein, means for positioning at least one of said dies relative to said lower tong jaw and a slotted arm portion pivotally and translatively attached to a pin assembly threadably traversable along said elongated lead screw member with said pin located within said elongated slot portion of said body member,~~

~~manipulating said lead screw member thus applying leverage and torque to said lower tong jaw relative to said upper tong jaw via said pipe dies about the axis of said pipe joint.~~

18. (Cancelled) An Isomeric application of torque to a coupling comprising the steps of:

a) Providing an isometric torque assembly comprising an elongated, rectangular body member having an elongated slot portion and an elongated lead screw member extending through said slot portion at least the length of said body member;

I) an upper tong jaw fixed to said body member having sliding pipe dies captured therein and means for positioning at least one of said dies relative to said upper tong jaw; and

II) a lower tong jaw having sliding pipe dies captured therein, means for positioning at least one of said dies relative to said lower tong jaw, and a slotted arm portion pivotally and translatively attached to a pin assembly threadably traversable along said elongated lead screw member located within said elongated slot portion of said body member;

b) attaching said Isometric torque assembly to a coupling comprising, an externally threaded member and an internally threaded member to be threadably coupled, by positioning said upper tong jaw around said internally threaded member of said coupling in a manner whereby one of said sliding

pipe dies is in contact with said externally threaded member and inserting an opposing pipe die opposite said coupling in a manner whereby each of said pipe dies are slidably captured within said upper tong jaw;

c) positioning said lower tong jaw around said externally threaded portion of said coupling in a manner whereby one of said pipe dies is in contact with said externally threaded member and inserting an opposing pipe die opposite said externally threaded member in a manner whereby each of said pipe dies are slidably captured within said lower tong jaw;

d) applying torque to each of said means of positioning said pipe dies sufficiently to grip said coupling members

e) rotating said lead screw thereby pivotally applying torque to said lower tong jaw while holding said upper tong jaw fixed relative to said lower tong jaw.

19. (Cancelled )The method according to claim 18 wherein said method further comprises the step of ~~positioning a load cell between a portion of said lead screw and said rectangular body and translating applied rotary torque applied to said lead screw to~~ in pounds force readable upon an attached custom torque gauge into applied torque on said coupling.

20. (Cancelled) The method according to claim 19 wherein said method further comprise the step of charting the reading of said gauge relative to applied torque on said pipe joint.